

PEYOTE

AN ABRIDGED COMPILATION

FROM THE FILES OF THE
BUREAU OF INDIAN AFFAIRS

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INTRODUCTION.

This pamphlet, which is an abridgement of a compilation made some time ago of selected matter from the peyote files of the Bureau of Indian Affairs, by Dr. Robert E. L. Newberne, is published as a convenient source of information for the employees of the Indian Service and for supplying those who are interested in securing regulative legislation against the sale, shipment, and use of peyote with the kind of data most frequently requested.

Peyote is said to be a narcotic drug, yet it is not covered by the provisions of the Harrison Narcotic Act; it is said to be an intoxicant, but its use is not interdicted by the national prohibition amendment to the Constitution of the United States.

Regardless of whatever else peyote may be, the weight of evidence pronounces it harmful to those who use it habitually, particularly to growing children; therefore I warn the Indian people against the drug and say to them, in the language of Herbert Spencer:

For complete living it is necessary that there shall be escaped the incapacities and slow annihilations which unwise habits entail.

I would also remind them, in the words of Clauston. that—

To crave is easy, to control is difficult: therefore the wiser course is to avoid those things which tend to create a craving.

CHAS. H. BURKE,
Commissioner.

PEYOTE.

THE INDIAN'S CRAVING FOR STIMULANTS.

Whether or not American Indians crave intoxicants more than other people, an impression to that effect is widespread, and certain writers have sought to explain and condone the alleged tendency by saying that the actuating desire has its origin in physiological and psychological deficiencies, caused by the lack of proper food through many generations and the present want of suitable mental stimulus.

In his native life there was much more to interest the Indian than there is now. His very existence was one of activity and industry. Every article used by him was of native manufacture. His food, his shelter, his raiment, his decorative art, his amusements—all depended upon his individual initiative and effort. But the tide of changing conditions which is bearing him onto the shores of a new world has swept away the stimulus that kept him busy and interested, and he is now watchfully waiting for his star of destiny to lead him to his place in the sun. His work, which was once done in the spirit of aggressive genius, is now resolved into commonplace toil, for, to him, what is the use of the struggle? They say that he has contended against fate and failed. Why not forget, and if there is anything that will bring about forgetfulness and make the heart glad, if but for a moment, why not take it?

If the use of intoxicating plants and of fermented drinks had been unknown to the ancient Indian, this theory would possess greater validity than can rightfully be accorded to it, but if the subject is studied by tracing the facts back through the ages, the evidence of a reversion to ancestral customs is suggested, if not made manifest.

The Indian has never been entirely satisfied with alcohol; its effects and its violent hasty reaction have not harmonized with his Elysian dreams, and such violent reactions have destroyed his faith in its power to transport him in celestial visions to the happy hunting grounds of his fathers; but he did not forego the stimulating effect of alcoholic drinks because of the disagreeable after effects, or because he was not getting what he longed for; it was the best he could do; and if he was ordained to live the life of the white man he would not repudiate his demons. But something in his nature—it might have been the coming into consciousness of knowledge long hidden in his subconscious mind, or it might have been the prompting

of cell cravings—told him that there was a better intoxicant than whisky, an herb known to his ancestors, and he sought that herb and found it in peyote, and he believes that his people now have an intoxicant that satisfies and yet leaves consciousness to witness the strange orgies that are taking place in the underworld of their mentality.

THE PEYOTE CACTUS.

The peyote cactus (*Lophophora williamsii*) is a succulent, spineless cactus, usually shaped like a turnip or a carrot, with a depressed globose or hemispherical head and having low, inconspicuous tubercles and a tapering tap root. The tubercles occur normally in longitudinal ribs, but in some forms of the plant they are arranged spirally or irregularly. In the center of each tubercle there is a flower-bearing areole with a dense tuft of erect hairs, from the midst of which the flower issues. When mature the tuft of hairs persists as a pulvillus in the form of a pencil or brush of hairs. The plants grow either solitary or, more frequently, in clusters of several from a common base.

The peyote of commerce is the dried flowering tops of the peyote cactus—a brown, bitter substance, nauseating to the taste, composed mainly of the blunt, dried leaves of the plant.

The mescal button (dried flowering top of the peyote cactus) is from an inch to an inch and a half in diameter, one-fourth of an inch in thickness, with a convex under surface. The button is brittle and hard when dry, but becomes soft when moistened; it has a very bitter, unpleasant taste, and an odor when moist which is peculiar and disagreeable. This odor is especially noticeable in the powdered drug.

DERIVATION OF NAME.

The correct commercial name in English for the drug is "pe-yo-te," which is an adapted form of the Spanish spelling "pe-llo-te" which, according to the Mexican variation in pronunciation, is called pe-yo-te, although always written in Spanish "pellote." This name is of Aztec origin, derived from the Nahuatl word "peyotl," meaning cocoon. The term "peyotl" was, and is still, applied in Mexico to other plants than *Lophophora*, notably to several species of *Cacalia*, the principal one of which is *Cacalia cordifolia*, which is used by the Mexican Indians as a medicine but not as an intoxicant. It was evidently the practice of the Aztecs to name plants from their real or fancied resemblance of the whole, or some part, to a well-known object. In the case of *Cacalia* it was the velvety, tuberous roots, which from their form and indument could be likened to the cocoon of a moth. In the case of *Lophophora* it was the flowering top.



Courtesy of Professor Safford.

LOPHOPHORA WILLIAMSII.

Typical form with defined ribs. Photograph of specimen in the Cactus House of the U. S. Department of Agriculture, collected in 1910, on the Hacienda de Cedros, near Mazapil, State of Zacatecas, Mexico, by Dr. Elswood Chaffey. Photograph natural size.

The term "mescal" as applied to peyote should not be confused with the distilled liquor mescal of Mexico, although it is an extension of the same word. In Mexico the most common intoxicant is mescal, and because of its effects the name was carried over by the American Indians to peyote for the reason that it also intoxicates. It was the simplest way to explain what it would do. If some new intoxicating drug were discovered and it was desired to explain its effect to the Mexican Indians, the quickest and easiest way would be to call it whisky, for they all know the effect of whisky just as the American Indians of the southwestern part of the United States knew what mescal would do. In Mexico mescal is not a synonym for peyote, but in the United States it may be properly so used, but the better word is "peyote."

The peyote of commerce is often called "mescal buttons," from the resemblance of the dried, flowering tops to coat buttons. There is no more reason for calling the peyote buttons mescal "beans" than there is for calling anything else a bean which is not a bean and has no resemblance to a bean. The preferable name for the drug is peyote. The accepted synonyms are "mescal" and "mescal buttons." The term "mescal beans" should not be used at all as a name for peyote by any person who has the slightest regard for scientific designations or for any form of accurate nomenclature.

INDIAN NAMES FOR PEYOTE.

Among both the Indians of Mexico and the United States the drug is known by various names; "xicori" by the Huicholes of Jalisco; "hikori," or "hikuli" by the Tarahumaris of Chihuahua; "kamaba" by the Tepehuanes of Durango; "ho" by the Mescalero Apaches, who formerly ranged as far south as Coahuila; "seni" by the Kiowas; and "wokowi" by the Comanches, some of whom formerly lived in the State of Chihuahua. The name "peyote" has survived as a general commercial term, in common with the less correct designations of "mescal" and "mescal buttons."

BOTANICAL NAME OF PEYOTE.

The correct botanical name for peyote is *Lophophora williamsii*. Until Safford showed, in 1915, that *Lophophora lewinii* and *Lophophora williamsii* are identical, it was believed that various species of *Lophophora* were represented in commercial peyote. In the nineteenth edition of the United States Dispensatory the drug is indexed as "pellote" (peyote) and "anhalonium," being described under the latter name. The species of *anhalonium* mentioned are *A. lewinii*, *A. williamsii*, and *A. jourdanianum*. The two principal species are now known to be identical.

BOTANICAL VARIATIONS.

Lophophora williamsii is quite variable; sometimes its ribs instead of being vertical are more or less diagonal or spiral, and instead of being separated by straight grooves the latter are sinuous, or the tubercles may be irregularly arranged. One form was described by Hennings as a distinct species under the name *Anhalonium lewinii*, but the type plant described and figured by him was, it is said, a boiled up "mescal button" obtained from a pharmaceutical manufacturing house. This specimen was in all probability gathered in the vicinity of Laredo, Tex. In this form the ribs are usually 13 in number, separated by strongly sinuous grooves. Sometimes there are 12 ribs, or even as few as 9; while in the typical *L. williamsii* there are usually 8 ribs, sometimes as many as 10, separated by straight, or almost straight, lines. It has been wrongly asserted that the petals of *L. lewinii* are yellow. Safford has proved that they have rose-tinted flowers which are in no way distinguishable in form or color from those of *L. williamsii*. He has further shown that typical plants of *L. williamsii* and *L. lewinii* may be found in the same cluster growing from a common base. Another form which departs from the typical *L. williamsii* even more than the plant figured by Hennings has been shown by Safford to be but a variety; hence, all narcotic peyote may be properly classified, botanically, under the genus *Lophophora williamsii*, thus eliminating the several names which arose from incorrect reference of the plant.

GEOGRAPHICAL DISTRIBUTION.

The geographical range of the genus *Lophophora* is from the southern border of Texas along the Rio Grande and from the mouth of the Pecos River southeastward to the southern part of Queretaro, Mexico.

As stated elsewhere, the peyote used by the Indians of the United States comes from the southern part of Texas and from the northern part of Mexico, the principal markets being Eagle Pass, Laredo, and Aguilares.

THE SACRED MUSHROOM OF THE AZTECS.

There can be no longer any doubt as to the identity of the sacred mushroom of the Aztecs, which was called "teonanacatl," with peyote. The widespread historical interest associated with the former justifies the republishing of Professor Safford's summary of his researches, which is a part of his article entitled "An Aztec narcotic," which appeared in the July number of the *Journal of Heredity* for the year 1915, Volume VI, No. 7.



Courtesy of Professor Safford.

ANOTHER TYPE OF LOPHOPHORA.

Form described by Hennings as a distinct species, *Anhalonium lewinii*, but often occurring in the same cluster with the typical form, growing from the same root. Photograph of specimen in the Cactus House of the U. S. Department of Agriculture, collected in the State of Zacatecas, Mexico, in 1908, by F. E. Lloyd. Photograph natural size.

After comparing the preceding accounts of the use of narcotics by the ancient Mexicans and by the Indians of the present day, separated in time by three centuries and in space by thousands of miles, there can remain no doubt that the mushroom-like peyote used by our own Indians in the United States, which we know to be identical with the sacred "hikuli" or "hicori" of the Sierra Madre Indians, is the same drug which was called "teonanacatl," or "sacred mushrooms," by the Aztecs. According to the earliest writers, it was endemic in the land of the Chichimecas, the early home of our Apaches, Comanches, and Kiowas, which is also the source of the modern supply. The ancient Mexicans, like the Huicholes and Tarahumaris of the present day, obtained their supply of the drugs through the medium of messengers, consecrated for the purpose, who observed certain religious rites in collecting it and who were received with ceremonial honors on their return. Although the Indians on our northern reservations now receive it through the medium of the parcel post, yet they attribute to it the same divine properties as did the ancient Mexicans and combine its worship with the religion they have received from Christian missionaries. It is only natural that those who are engaged in the work of Christianizing and uplifting our Indians should try, like the early Spanish missionaries, to stamp out its use. On the other hand, many of the Indians who use the narcotic declare they take it as a kind of sacrament or communion, and that it helps them to turn from wickedness and lead good lives.

A knowledge of botany has been attributed to the Aztecs which they were far from possessing. Their plant names show that the classification of plants was not based upon real affinities, and it is very probable that they had not the slightest notion of the difference between a flowering plant and a fungus. Certainly they applied the name "nanacatl" and "nanacace" to both fungi and flowering plants and the name "peyotl" to both the narcotic cactus, *Lophophora*, and to the tuber-bearing composite, *Cacalia*. The botanical knowledge of the early Spanish writers, Sahagun, Hernandez, Ortega, and Jacinto de la Serna, was perhaps not much more extensive; their descriptions were so inadequate that even to the present day the chief narcotic of the Aztecs, "ololiuhqui," which they all mention, remains unidentified. They knew these narcotic drugs only in their dry state, and the general appearance of the "peyotl" brought from the vicinity of Zacatecas was so very different from the "teonanacatl" from the more northerly region inhabited by the Chichimecas that the two forms might easily have been regarded as coming from distinct plants.

As far as the author knows, this is the first time that the identity of the "sacred mushroom" of the Aztecs with the narcotic cactus known botanically as *Lophophora williamsii* has been pointed out. That it should have been mistaken by the early Spaniards for a mushroom is not surprising when one notices the remarkable resemblance of the dried buttons to peltate fungi and also bears in mind that the common potato (*Solanum tuberosum*) on its introduction into Europe was popularly regarded as a kind of truffle, a fact which is recorded by its German name, "kartoffel" or "tartuffel."

PEYOTE IN COMMERCE.

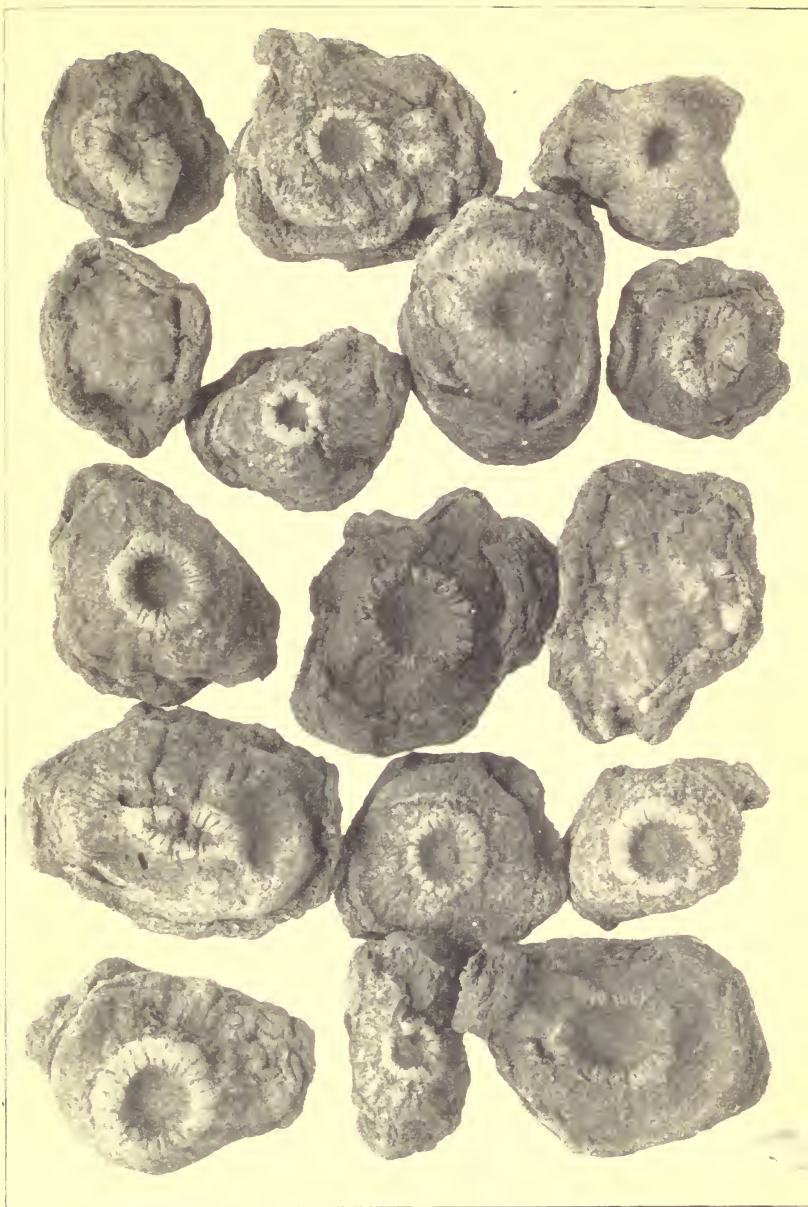
Peyote has not attained a prominent place as an article of commerce, principally because of the limited demand for it in the channels of trade. Among the Mexican Indians it is gathered and dried for sale to local users, and a few merchants take it in trade at their stores for the Indian market of the United States. The largest

dealers are L. Villegos & Co. and Wormser Bros., both of Laredo, Tex. These two houses supply most of the peyote consumed by the Indians of Wyoming, Nebraska, Wisconsin, Iowa, and perhaps the Dakotas, and also a considerable part of that which is used by the Oklahoma Indians, particularly the Osages. The chief source of supply for the Indians of the southern part of Oklahoma and for other Indians not included in the line of runners of the first pilgrimage organization is through Eagle Pass, El Paso, Aguilares, and other Texas towns along the Rio Grande, where it is purchased from Indians or Mexicans, who gather and dry it, or from small dealers. One Indian will always divide his supply of peyote with another Indian, and frequently the only purchase consideration is the strengthening of "the tie that binds."

The principal means of transporting peyote among the Indians is in suit cases of pilgrims. While pilgrimages to peyote-land are an established feature of the use of the drug, the commercial consideration seems to be subordinate to the "missionary spirit" which seeks to spread the mescal gospel among the Indians.

Among certain tribes of Indians in Mexico the gathering of peyote is a sacred act which must be celebrated by elaborate rites and ceremonies. Those who take part decorate their hats and their hair with feathers, indicate with paint, which they apply to their faces, the distinctive attributes of their caste and of their gods, but the peyote which finds its way to the "church tents" of the Indians of the United States had no part in pagan rites during the process of its preparation for use. It is, as a rule, clipped from the cactus in October and dried for a month before it is placed on the market. Before the war it cost the consumer in Laredo \$5 a thousand buttons; the merchants pay \$2.50 a thousand for it. A gatherer will not average more than 200 buttons a day, it is said, and he must dry them for a month before taking them to the merchant, and then perhaps take his pay in trade. If he is fortunate enough to meet a "pilgrim," which is possible in towns other than Laredo, at which place the sale is practically regulated by contracts with the two firms that handle the drug, he may get twice the ordinary price for his product.

Peyote grows on both sides of the Rio Grande. That which is sold by the Laredo houses is derived principally from the cactus hills on the American side. A special agent of the Bureau of Indian Affairs visited the little Mexican town situated among these hills—a town which is practically supported by the peyote industry—and found that the supposed curative effect of the drug has not been manifested there, as is evidenced by the fact that the cemetery is larger than the town itself. If peyote is the great healing agent that it is claimed to be, surely, like the proverbial prophet, paraphrasing the statement to fit the application, it is without healing power in its



Legend by Professor Safford.

THE AZTEC NARCOTIC CACTUS, TEONANACATL.

"God's Flesh," or "Sacred Mushroom" of the Aztecs. Disks cut from the crown of the cactus *Lophophora williamsii* and dried. Photograph of specimens received by the Bureau of Chemistry U.S. Department of Agriculture, from the Indian Office in 1914. Now widely used as a narcotic by Indians of the United States. Natural size.

own country—in its own home town—except in its tendency to heal by hastening the coming of the last sleep from which there is no awakening until the day dawns for the dead to give their testimony in the courts of eternity.

EARLY MISSIONARY REPORTS CONCERNING SACRED PLANTS.

According to the reports of the early missionaries, the Indians, particularly those of Mexico, held in veneration various plants which they conceived to be incarnations of spirits, some with potentialities for good and others decidedly evil in character. These plants were shown great honor and courtesy—the good, in order to invoke their favors; the bad, as an appeasement to induce them to withhold their evil influences. Indian mythology is a blend of superstitions woven around a talking plant or animal, concerning itself with the affairs of human life. The cutting down of a tree was often the occasion for the observance of religious rites that would explain to the embodied spirit that, after due consideration, the tree body which he inhabited was the most suited material that could be found for some higher purpose, as the bridging of a stream or the erection, perhaps, of a totem pole, and that in bringing about its death its human friends had sought to show their veneration, hoping thus to insure for themselves the continued favor of the spirit now free to reincarnate and manifest its power in another form.

It is not surprising that narcotic plants should have been subject to marked veneration. Bancroft refers to a sacred fungus, or mushroom, which the Indians of Mexico called the "flesh of God," which excited the passions and caused the partaker to see snakes and divers other visions. Padre Bernardino Sahagun, writing before the year 1569 of the Chichimeca Indians of the northern part of Mexico, referred to their having discovered evil mushrooms which intoxicated like wine. It is now known with almost certainty that the so-called mescal button is what was referred to as a fungus, or evil mushroom, for three centuries of investigation have failed to reveal that Mexico is or ever has been the home of fungus with intoxicating properties.

A physician, Dr. Francisco Hernandez, who was sent by the King of Spain in 1570 to study the resources of Mexico, in writing of the peyote cactus said:

The root is of nearly medium size, sending forth no branches nor leaves above ground, but with a certain woolliness adhering to it on account of which it could not be aptly figured by me. Both men and women are said to be harmed by it. It appears to be of sweetish taste and moderately hot. Ground up and applied to painful joints it is said to give relief. Wonderful properties are attributed to this root. It causes those devouring it to be able to foresee and to predict things; such, for instance, as whether on the following day the enemy

will make an attack upon them or whether the weather will continue favorable, or to discern who has stolen from them some utensil or anything else, and other things of like nature which the Chichimecas really believe they have found out; on which account this root scarcely issues forth but conceals itself in the ground, as if it did not wish to harm those who discover it and eat it.

WORSHIP OF THE CACTUS.

Mr. Havelock Ellis asserts that there are five or six allied species of cacti which the Indians of Mexico use and treat with great reverence, and he quotes Lumholtz as his authority for saying that the Tarahumari, one of the tribes of that country, worship various cacti as gods, to be approached only in the most deferential manner with uncovered heads. When they wish to obtain these cacti they cense themselves with copal incense, and, with profound respect and watchful tenderness, dig them up, exercising great care that they do not hurt the gods, while women and children are warned from the spot. It is said that even Christian Indians regard Hikori, the cactus god, as coequal with their own divinity and make the sign of the cross in the presence of the cactus god. At all festivals, or fiestas, as they are called in the Spanish language, Hikori is made into a drink and consumed by the medicine man, or certain selected Indians, who sing as they partake of it, invoking Hikori to grant "beautiful intoxication," making at the same time a rasping noise with sticks, while men and women perform a fantastic and picturesque dance—the women by themselves in white petticoats and tunics—before those who are under the influence of the god.

The Indians of the United States have departed from the original mode of worship, which limited the partakers to a few, and the prevailing custom now is open communion; nor is the habit a vice of men only, for the women also are sharing in its privileges, too.

THE ATTITUDE OF MISSIONARIES.

To the missionary peyote is more than a physiological problem, more than a social problem. It is more than another "dope" problem to be disposed of by legislating it into the class of drugs covered by the national narcotic law. It is, as one writer stated, "a system of pagan worship, inimical to Christianity, which has its roots deep into the historic past of the red race, and because of this it makes the strongest kind of an appeal to the Indians." Does the red man hail it as a revival of an ancient religion altogether his own, which is sent to him in divine purpose to take the place of the white man's foreign religion, or is this a pretense? To the missionary the use of peyote is paganism arrayed against Christianity—the power of a drug against the elevating influence of the Cross.



Photograph and legend by Safford.

"THE DEVIL'S ROOT."

Peyotl Zacatecensis (*Lophophora williamsii*). "The root is of nearly medium size, sending forth no branches nor leaves above ground, but with a certain wooliness adhering to it." Photograph natural size.

CEREMONIAL USE OF PEYOTE BY THE INDIANS.

Professor Safford in his article, "An Aztec narcotic," says:

The first to bring to public notice the ceremonial use of this narcotic by existing tribes of Indians was James Mooney, of the Bureau of American Ethnology, in a paper read before the Anthropological Society of Washington on November 3, 1891. His attention had been directed to it while making investigations among the Kiowas, who are descendants of one of the tribes known to the Aztecs by the name of "Chichimecas." Mr. Mooney found that these Indians attribute divine powers to the drug, and the ceremony attending its use is of the nature of a religious rite in which all the tribes of the southern plains take part.

The Kiowas and other Indians of Oklahoma receive the greater part of their supply of the drug from traders who bring it from the vicinity of Laredo, Tex., in the form of "mescal buttons."

* * * * *

Peyote meetings are nocturnal, usually beginning Saturday night * * *. The ceremony occupies from 12 to 14 hours, beginning about 9 or 10 o'clock and lasting until early noon of the next day. Saturday night is now the time usually selected in deference to the white man's idea of Sunday as a sacred day and a day of rest. The worshipers sit in a circle around the inside of the sacred tipi with a fire blazing in the center. The exercises open with a prayer by the leader, who then hands each man four mescals, which he takes and eats in quick succession, first plucking out the small tuft of down from the center. In eating, the dry mescal is first chewed in the mouth, then rolled into a large pellet between the hands and swallowed, the man rubbing his breast and the back of his neck at the same time to aid the descent. After this first round the leader takes the rattle, while his assistant takes the drum, and together they sing the first four times, with full voices, at the same time beating the drum and shaking the rattle with all the strength of their arms. The drum and rattle are then handed to the next couple, and so the song goes on around and around the circle—with only a break for the baptismal ceremony at midnight and another for the daylight ceremony—until perhaps 9 o'clock the next morning. Then the instruments are passed out of the tipi, the sacred foods are eaten, and the ceremony is at an end. * * * The dinner, which is given an hour or two after the ceremony, is always as elaborate a feast as the host can provide. The rest of the day is spent in gossiping, smoking, and singing the new songs, until it is time to return home.

THE OLD-TIME PEYOTE MEETING.

Safford in one of his research articles on peyote includes a description of a peyote meeting, written in 1754 by Padre Jose Ortega, in which the drug was referred to as "raiz diabolica," or devil's root. It must have been the custom in those days to use both peyote and alcoholic drinks on the occasion of the celebration of these fiestas, as may be seen by the following record of happenings, written by the father who had witnessed many such functions:

Close to the musician was seated the leader of the singing, whose business it was to mark the time. Each of these had his assistants to take his place when he should become fatigued. Near by was placed a tray filled with peyote, which is a diabolical root that is ground up and drunk by them so that they

may not become weakened by the exhausting effects of so long a function, which they began by forming as large a circle of men and women as could occupy the space of ground that had been swept off for this purpose. One after the other went dancing in a ring, or marking time with their feet, keeping in the middle the musician and the choirmaster whom they had invited, and singing in the same dispassionate tone that he had set them. They would dance all night, from 5 o'clock in the evening to 7 o'clock in the morning, without stopping or leaving the circle. When the dance was ended, all stood who could hold themselves on their feet, for the majority from the peyote and the wine which they drank were unable to utilize their legs to hold themselves upright.

In the same article there also appears an account written in the sixteenth century—written before Sir Francis Drake set out upon his journey around the world, and before tobacco, which was one of the sacred plants of the Indians of Mexico, was carried to England. Padre Bernardino Sahagun, the first writer on peyote, is quoted as follows:

The first thing eaten at the party was certain black mushrooms, which intoxicate and cause visions to be seen and even provoke sensuousness. These they ate before the break of day, and they also drank chocolate before dawn. The mushrooms they ate with sirup and when they began to feel the effect they began to dance; some sang; others wept because they were already intoxicated by the mushrooms; and some did not wish to sing, but seated themselves in their rooms and remained there as though meditating. Some had visions that they were dying and shed tears; others imagined that some wild beast was devouring them; others that they were capturing prisoners in warfare; others that they were rich; others that they had many slaves; others that they had committed serious crimes and were to be put to death as a penalty; others that they had been guilty of theft and were to be executed; and many other visions were seen by them. After the intoxication of the mushrooms had passed off they conversed with one another about the visions they had seen.

Padre Jacinto de la Serna in describing a meeting of conjurers held in July, 1626, mentions the use of a mushroom that had similar effects to peyote. These mushrooms were administered with pulque soon after midnight to the members of the congregation, after the manner of communion. Such celebrations were closed by drinking "an abundant quantity of pulque, so that the mushrooms on their part and the pulque on its part took away their reason, which was a pity."

Whether the conjurers or sorcerers used peyote or a poisonous mushroom or some other drug was in doubt for many years, but since the scientists have never discovered such a mushroom and because of the fact that peyote, on account of its resemblance in the dried state to a mushroom, was frequently referred to as "mushroom," it is now believed that the drug used by the conjurers was none other than peyote. Safford, in fact, identifies the sacred mushroom of the Aztecs with the narcotic cactus known botanically as *Lophophora williamsii*.



Courtesy of Professor Safford

THE SOUTHERN TYPE.

Young plant of *Lophophora* from Higuerrillos, State of Queretaro, Mexico, the southern limit of the genus. Collected in 1905 by Dr. J. N. Rose. Photograph natural size.

Father de la Serna said that while very little could be ascertained about the conjurers, whom he characterized as rascals, "it stands to reason that they must have a pact with the devil." Thus it is seen that peyote has not always kept respectable company, for, in its use by the conjurers referred to who were feared because of the evil that they did, the purpose to which it was dedicated was far removed from good—it was indeed an agent of death.

AN OFFICIAL DESCRIPTION OF A MODERN PEYOTE MEETING.

The Handbook of North American Indians, issued by the Bureau of Ethnology, describes a peyote meeting thus:

Among the Kiowas, Comanches, and other plains tribes it is rather a ceremony of prayer and quiet contemplation. It is usually performed as an invocation for the recovery of some sick person. It is held in a tipi, specially erected for the purpose, and begins usually at night, continuing until the sun is well up in the morning. As many men as can sit comfortably within the tipi circle may participate, but, as a rule, women do not take part in the ceremony proper, but occupy themselves with the preparation of the sacred food and of the feast in which all join at the close of the performance. A fire is kept burning in the center of the tipi, inclosed within a crescent-shaped mound, on the top of which is placed a sacred peyote. Following an opening prayer by the chief priest, four peyotes are distributed to each participant, who chews and swallows them, after which the sacred songs begin to the accompaniment of the drum and rattle, each man singing four songs in turn, and are kept up all night, varied by the intervals of prayer and other distributions of peyote, with a peculiar baptismal ceremony at midnight. The number of "buttons" eaten by one individual during the night varies from 10 to 40, and even more, the drug producing a sort of spiritual exaltation differing entirely from that produced by any other known drug and apparently without reaction. The effect is heightened by the weird lullaby of the songs, the constant sound of the drum and rattle, and the fitful glare of the fire.

THE PEYOTE RELIGION.

Peyote has been used in the ceremonies of pagan forms of worship among the Indians of Mexico from time immemorial—long before the coming of the Spaniards and the gospel of the Cross. The ceremonies pertaining to its use in religious functions have been modified by the influence of Christian contact, and to some extent made to conform to denominational practices best understood.

In Oklahoma the Peyote Church has been chartered under the name of the Native American Church. It is probable that other States will grant charters to the cult, but in doing so will they be preserving the right of religious freedom, or will they be giving charters to organized bodies to use a habit-forming harmful drug? In the opinion of many, to give recognition to the Peyote Christian Church is as incongruous as it would be to recognize the Opium Christian Church, or the Cocaine Society of Christians.

THE GROWTH OF THE PEYOTE CULT.

The use of peyote by the Indians of the United States has not been common for more than a quarter of a century, though it has been used beyond that period of time by a few of the tribes, notably the Kiowas and Comanches. From the southern tribes the habit has gradually spread northward, perhaps as far as the Canadian border, dropping, as it moves away from its ancestral home, many of its pagan forms to take on certain characteristics of Christianity, until it now poses as Christian religion and its priests assume to administer the sacraments, and some claim the right to celebrate the marriage ceremony. It has appealed with singular force to the Plains Indians, among whom it supplanted the "Messiah craze." Where Shakerism thrives peyote is not popular, for the former seems to give the Indians an avenue for the outlet of their emotional nature and satisfies their pride in the possession of a distinctive Indian religion.

The extension of the peyote religion is due to active missionary efforts on the part of those who saw in it an opportunity to gain personal leadership in promoting the tenets of a cult whose emblem of the eucharist is an intoxicant which stimulates and entrances far beyond the powers of alcohol and yet permits the retention of consciousness, thus leaving the mind free to witness, although in helplessness, a panoramic scene of color visions that transport the soul into a paradise where it is lost in wonder, love, and praise, or into an inferno on the wall of which in fiery characters are written the sins of the observer.

The Reverend Doctor Roe in writing on the peyote cult ascribed its growth to three reasons, as follows:

1. It is a drug habit producing pleasurable excitation of the imagination, ordinarily without immediate injurious effects.
2. It is a religion which claims to be the Indian form of Christianity, and therefore, makes a strong appeal to the racial instinct.
3. It is generally organized and promulgated by young educated Indians, who thus find that pathway to ambitious prominence which is denied them under the old-time régime.

These three reasons, as modified by local conditions, or as reinforced by arguments of wider range, appeal to the Indian with compelling force—a new clan, an Indian religion, with a sacrament which contains the incarnate Holy Spirit, and a leadership that promises power and honor to all who will follow. What more could the poor Indian hope for on this side of Jordan's wave?

Well might the Reverend Mr. Vruwink seek to give an explanation of why the Indians do not retreat from the danger which threatens them when they realize later on that peyote is a curse industrially, economically, physically, mentally, and morally. His pronouncement is as follows:



Photograph and legend by Professor Safford.

LOPHOPHORA WILLIAMSII, SHOWING TWO FORMS FROM THE SAME HILL.

One of these has been erroneously described as a distinct species under the name *Lophophora lewinii*.

Some continue in the habit because they dare not stop; they are afraid of the ridicule and threats of the peyote members. Others continue because they can not stop; they are drug fiends bound hand and foot. Still others will not stop because peyote means pleasure, profit, and leadership. Many Indians eat peyote because of the pleasurable sensations. It is primarily a lust of the flesh—an indulgence at the expense of all that makes for the highest in manhood and womanhood.

The peyote societies offer to the returned students an opportunity to live at the expense of the ignorant and superstitious and be honored for his cunning in his own tribe. He beholds a pathway to leadership—an ambition so dear to the heart of every real Indian; he sees success and fame that would be hard to attain through the channels of the old-time Indian societies or in Christian churches in which the doctrines of a meek and lowly life are preached; he embraces the chance and launches out as a leader.

But fear, habit, and lust for pleasure, profit, and power do not account for every case. There is the ever-present factor of ignorance. Few peyote eaters realize what a dangerous drug they are dealing with, and many think that it is a harmless and good medicine, not appreciating the fact that every time peyote kills a pain it also weakens the heart action and shortens life.

There are others who may eat peyote believing that it is a cure for drunkenness, not knowing that when the drug takes away the desire for whisky it is only because the subject is saturated with a drug which is much worse than whisky in its ultimate effects on the body and mind; yes, and not even dreaming that an habitual peyote user is a drunkard just as much as an habitual user of whisky. The ignorant Indian may and does put peyote in the place of the Bible; in the place of the Gospel; in the place of the Holy Spirit.

If these missionaries, Doctor Roe, who has since died, and the Reverend Mr. Vruwink, were not right in their estimate of peyote and its dangers, they thought they were, and it was their love for the Indian race that prompted them to send out appeals to the good people of the United States, to the Congress, and to the churches to throw out the life line of prohibitive regulation ere the Indian was enthralled in hopeless slavery to a merciless, powerful, habit-forming drug.

RELIGIO-THERAPEUTIC USE OF PEYOTE.

Among certain tribes of the Indians of the United States members of the new cult use a decoction of peyote as a sort of holy water which they employ for the rites of purification and for their sacraments of baptism and communion. They administer the drug in this form or in the dry state for all classes of ailments in the old and young, and even pour the holy water into the ears of newborn babies.

Peyote is heralded by its devotees as a sovereign remedy for tuberculosis and social diseases. By its opponents it is asserted that to the habitual use of the drug cases of imbecility, insanity, and suicide have been directly traced.

It is held by the advocates of peyote that the drug destroys the desire for liquor. This is probably true in some cases, for the drug

produces a "more satisfactory" state of intoxication with less of the "morning after" feeling. And, too, it is a more respectable way of getting drunk, although the habitual user of peyote to excess often becomes a worthless member of his tribe, losing interest in everything except his besetting sin.

Peyote users reason that because their addiction is not characterized by acts of violence the Government should not deprive them of the use of the narcotic; but the users of morphine could urge this plea also.

THE EXTENSION OF THE HABIT.

From time immemorial the Indians of Mexico and those who formerly lived in Texas, when it was a part of that country, have used peyote for producing intoxication during their religious ceremonies. Among some of the tribes only the leaders or "priests" took the drug and beheld the visions which enabled them to pronounce the divinations, but among the Indians of the United States this practice has never been in vogue. All the male members partake openly, and it is said that the women, when not permitted by the regulations of the local society to eat peyote as participants in the religious functions, take it privately. It is certain that many of them are addicted to the habit and that they do not always abstain when they attend a peyote festival.

The Roman Catholic Church in Mexico has exerted its influence against the peyote habit since the day of the coming of the first missionaries from Spain, and its members in good standing among the Indians of Mexico do not take part in peyote worship. The same declaration is true with respect to the relation of the churches of all denominations having missionaries among the Indians. In other words, the churches do not condone the use of the peyote, and as the Indians become addicted they withdraw from the churches and become "peyote worshippers."

HARMFUL EFFECTS OF PEYOTE.

The following excerpts on the harmful effects of peyote are taken from correspondence on the subject in the Indian Office files:

The late Right Reverend Monsignor Ketcham:

Those who defend the practice of peyote eating contend that those who indulge abstain from whisky and that a marked improvement is noted in their conduct. I presume that this is only an instance of one evil supplanting another. One thing is certain, that where the practice has taken hold the Indians indulge to an excess, spending whole nights eating mescal and engaging in peculiar religious observances with which they have surrounded its use. It will scarcely be possible to regulate its use and keep it within bounds. Systematic loss of sleep and overstimulation by drug can not serve any

useful purpose. Those who indulge will not be in a condition to work as they should, and moreover, they will suffer physical and mental injury and, of course, will be losers morally.

The peyote is a potent narcotic, affecting the respiratory and nervous systems, producing the same character of effect as the use of opium and hashish. The mind of the habitual user becomes affected, and the nervous energies are sapped. In some instances persons in a weak state of health have died as a result of an excessive indulgence in this narcotic. The Indians claim that it has valuable medical properties, but the scientists of the Government and the professors in the schools of pharmacy who have investigated it deny that it has any medicinal properties whatever. It has been commended by some because of the alleged claim that it removes the taste for alcoholic liquors and the user is in a condition of stupor while under its influence instead of a boisterous mood, as when under the influence of alcohol. This is no reason why Indians should impair their health by indulgence.

The late Reverend Doctor Roe :

A number of cases have come to my knowledge in which sudden death, apparently from heart failure or hemorrhage, has overtaken individuals while either eating or drinking peyote. Generally, however, the effect is slow, resulting in increasing lassitude and inactivity, with weakening will, disinclination to exertion, and loss of power of resistance when attacked by disease. We are also convinced that the offspring of confirmed users of peyote show marked nervous and brain disturbances, resulting often in early death, while the custom of administering the drug to young children must be deleterious. It is thought that the excessive mortality among the young men of certain tribes, as the Oklahoma Arapahoes, is due to the prevalence of this habit among them. I am inclined to think that a moderate and occasional use of the drug may produce no evil effects and may be beneficial in some cases, if only because of its purgative action. Like liquor, it may often be used with impunity, but tends strongly to excess and physical harm.

Industrially, the practice is without question injurious. The physical deterioration will, of course, in the end, show itself in decreased industrial efficiency. The all-night character of their worship unfits the peyote eaters for active service the following day, while the influence of the drug results in unsteady nerves and relaxed brain. The undoubted fact that some are industrious may often be offset by the statement that these, like some hard drinkers, do not succumb because of exceptionally vigorous physiques or, perhaps, use the plant only in moderation. It should be further remembered that as the cult confessedly attracts the young, educated, and progressive it should show an exceptionally high degree of industrial efficiency.

It is certain that any practice which excites the imagination and relaxes the will, as the use of peyote does, must result in immorality, and the facts bear out this reasoning. I have been told repeatedly by those who have given up the practice that the so-called "mescal feasts" were often the scenes of unbridled libertinism. In some tribes, the Winnebagos, for example, the cult teaches that peyote and liquor are incompatible, and thus some restraint is exercised over drunkenness, but unfortunately, in most cases, the effect does not last. Certain undoubted instances of moral reform in such tribes I would attribute to the influence of the Bible and Christian teaching intermingled with their worship rather than to the drug.

If Christianity, the accepted religion of the most civilized races of the earth, has any superiority, and we contend that it has much, over the pagan or

hybrid forms of religion practiced by aboriginal peoples, then anything that prevents the acceptance of the better and promotes the retention of the worst is a detriment to those affected. This is true of the mescal worship. By this intermixture of a drug habit with a pretense of Christian teaching, the young men of many tribes are being led into an absurd cult incompatible with Christianity, and the work of the missionaries of all churches is seriously interfered with. If this undoubted disadvantage to the Indian resulted from a religious creed with its attendant worship alone, we could well afford to await the change that follows more light, but as it springs from an imported and vicious drug habit we believe that it is well within the power and the obligation of the Indian Office to effect its suppression.

Professor Hrdlicka (curator, Division of Physical Anthropology, United States National Museum):

While the effects of peyote are not so violent or quite so harmful as those of alcohol, they are nevertheless, deleterious, and the use of the drug should be discouraged, and, if possible, prohibited. The effects of the drug manifest themselves very largely in nervous stimulation, and, in cases where larger doses are taken, in a sort of intoxication. These conditions, if repeated for a length of time, are bound not only to cause a permanent harm to the individual addicted to the mescal, but they also become a source of other abnormal conditions. The habitual use of peyote must be classed with the habitual use of drugs such as morphine or cocaine.

IS PEYOTE AN INTOXICANT?

In their definition of certain terms the medical and legal professions are at variance. As in their concept of what constitutes insanity, they differ as to what is an intoxicant. In defining *intoxication*, Dorland's American Medical Dictionary calls it *poisoning; the state of being poisoned*. Therefore, an intoxicant is that which poisons. Webster's International Dictionary defines an intoxicant as *that which intoxicates; an intoxicating agent*. The word *intoxicate* is defined as *to drug or poison; to inebriate; to excite, or to stupefy by drink, or by a narcotic substance*. This is the definition accepted by the medical profession. The definition accepted by the legal profession is more restricted. Black, on "Intoxicating liquors," section 423, says: "It is held that the word *intoxicated* as used in the statutes is to be taken in its ordinary signification, and it means intoxicated by alcoholic liquors." The American Encyclopedia of Law, second edition, says: "The term *intoxicated* usually signifies the condition produced by drinking intoxicating spirituous liquors and is equivalent to drunk.

It is illegal to introduce intoxicants into an Indian country, or to sell or give them to Indians, but under the restricted definition of the law, indictments charging violation of the law, when the intoxicating agent has been peyote, have not been sustained in the courts, and since the drug is not named in the Harrison Antinarcotic Act it is held not to come within its provisions.

The situation produced by not including it among the intoxicants because it is not an alcoholic intoxicant and by excluding it from the list of narcotics because it is not called a narcotic in any law is one of the strongest indications for special legislation for the regulation of the sale and use of the drug. If it intoxicates by poisoning, it should be defined in law as an intoxicant. If it is a narcotic habit-forming drug, dangerous to the health and welfare of the people, it should be made the subject of regulatory laws as are other such drugs. If it is neither an intoxicant nor a narcotic habit-forming drug dangerous to the health of the people of the United States, then all controversy should be removed by careful study of the subject by an impartial commission of Government-appointed scientists.

The present scientific view is that peyote is a narcotic and an intoxicant; that it is a habit-forming drug possessing limited, if any, therapeutic properties; that it is dangerous and should be made the subject of restrictive legislation.

The Indians, whose ideas of intoxicants are limited to the effects produced by alcohol, are sincere in their belief that peyote is not an intoxicant. It does not completely stupefy by its poisonous action on the protoplasm, but exerts its influence more particularly on the nervous system, leaving, unless the dose has been overwhelmingly large, the higher consciousness to look down, as it were, in helpless amazement on the warfare between the cells of nerve centers and the poisonous drug circulation in the blood—a tragedy of mind destruction and soul dishonor.

Alcoholic drinks may be so modified by processes of manufacture or by the admixture of other substances as to form agreeable beverages, and, when thus prepared, they may be taken for their pleasant taste and not for their stimulant effect, but this is not true of peyote. The taste of this substance is so unpleasant as to preclude anyone from developing a liking for it. It is taken solely for its effects—for the purpose of producing intoxication. Even when it is administered for the ostensible purpose of relieving pain, the dose to be effective must be sufficient to obtund the sensibilities of the nerves by its narcotic effect—that is, by its intoxicant properties. In fact, the value of peyote as a remedial agent has never been proved. It was formerly employed to some extent in the treatment of the various forms of neurasthenia or weakness of the nerves, hysteria, asthma, rheumatism, and neuralgia; but at present it is not used in scientific medicine, nor is it manufactured as a pharmaceutical product. Some years ago two firms of manufacturing chemists—one in the United States and one in Germany—marketed a medical preparation of peyote, but they no longer do so, because the physicians would not prescribe so dangerous a habit-forming drug of so uncertain therapeutic value.

PEYOTE AS AN INTOXICANT BEFORE THE COURTS.

Peyote as used by the Indians of the United States bears no resemblance to their conception of an intoxicant. The product is the dried flowering top of a spineless cactus, and even when it is served in the form of a decoction the liquid is unfermented. They, as well as the majority of white people, associate the word intoxicant with some form of alcoholic drink.

From the verdicts in the few introduction cases which have come before the courts it is evident that the trend of legal opinion is that peyote is not an intoxicant within the meaning of the law.

Safford, in writing of peyote under the title "An Aztec Narcotic," quotes the testimony given at a trial in which it was sought by invoking the aid of the law to establish a precedent which would serve as a basis for legal procedure to keep the drug from being carried or shipped into Indian country. Inasmuch as the proceedings quoted are a matter of record, they follow without further credit and without further indication of their source:

On March 15, 1914, a Menominee Indian boy was arraigned before a Federal court charged with the introduction of an intoxicant, peyote, into an Indian reservation and with giving an intoxicant, peyote, to Indians in violation of the law.

The drug had been brought from Aguilares, Tex., by parcel post and by the defendant taken on the Menominee Reservation in a suitcase and carried to the house of an Indian who was to give a peyote "function" of a religious nature. At the house of worship those who were to participate in the function first made a line about the house to keep out the evil spirits, and then prayed to God, asking him to make all of them good and keep them from evil. It was testified that the peyote was distributed to each a certain portion, and when it was eaten it caused the partakers thereof to see the evil things they had done and showed them the good things they ought to do. One witness stated that after he had eaten four buttons he could see with his eyes closed pictures of various kinds. First, he saw God with a bleeding wound in his side. This vision would vanish when he opened his eyes and reappear upon closing them, but it finally gave away to an hallucination of a different character, for he saw next the devil with horns, tail, and all, and he was black. Then he saw the bad things which he had done; he saw bottles of whisky that he had drunk, a watermelon which he had stolen, and so many other things that it would take all day to tell of them.

Then he saw a cross with all kinds of colors about it, white, red, green, and blue. He said that he was not made helpless, and could have walked, had he wished, but he preferred to sit still and look at the pictures.

Another witness testified that he ate peyote so that his soul might go up to God. He also testified that peyote had helped the Indians by making them lead better lives and forsake alcoholic drinks.

Upon this evidence the defendant, who admitted the facts of having introduced peyote into Indian country and delivering it to Indians, was acquitted on the ground that the meeting was of a religious character and that peyote was used to celebrate religious rites.

HOW PEYOTE IS TAKEN AND ITS IMMEDIATE EFFECTS.

Peyote is taken in several ways—by chewing and swallowing the dried buttons, in a decoction or “tea,” by moistening the buttons through holding them in the mouth for several minutes and then swallowing them to be digested by the stomach and by grinding the substance to a powder and putting it into capsules before swallowing it. The most usual method, perhaps, is that of chewing and swallowing the buttons, as this gives the quickest action consistent with the avoidance of waste of any of the drug. It is said that some Indians make a tea from the buttons and after drinking it, eat the dregs so as to be sure that they have not wasted anything. It is not uncommon for those who are not able to chew up the dry hard peyote buttons to have this done by some friend who has good teeth, who, after chewing the substance until it is in condition to be swallowed, spits it out in his hand and returns it to its owner to do the rest.

The effects of peyote are probably more uniform than those of most intoxicants, but still there is considerable variation in them, according to the character, disposition, susceptibility, mental characteristics, and physical health of the individual users. Other factors influencing variation in symptoms are size of the dose and the number of previous doses taken preliminary to the debauch.

The first appreciable sought-for effect is said to be a peculiar excitement of the brain, expressing itself in a feeling of contentment, well-being, and a friendly attitude toward the world in general. This feeling is soon followed or supplemented by a delightful derangement of the centers of sight in the brain, which causes, more particularly when the eyes are closed, a constant flow of scenes of infinite beauty, grandeur, and a variety of both color and form which pass in panoramic review, the number being so great that none are repeated. The sense of time is greatly perverted—moments are as minutes, minutes are as hours, and hours are as days.

If the dose has been excessive, or if the brain is embarrassed by other poisons circulating in the blood, the scene may shift to one of unpleasant aspect, and hideous monsters, grotesque and grinning faces, and beings of distorted shape appear. Indians sometimes interpret these disagreeable visual hallucinations as denizens from the abode of evil spirits sent as a warning to them to forsake their evil ways or as a token that they should abandon the use of peyote. They interpret the pleasing visions as a reflection of the beauties of paradise.

There is no particular variation in the effect of the drug on Indians and white people. If the peyote is good for the Indians, it is good

for the white people: if it is bad for the Indians, it is bad for the whites. It is a drug with definite physiological action, which, under similar conditions, is no respecter of persons or races.

PHYSIOLOGICAL ACTION.

The following adaptations were made from the notes of the investigators to whom they are credited:

Dr. Walter E. Dixon:

The physiological action of peyote may be divided into a preliminary stage and a stage of intoxication. In the preliminary stage there is excitement, a feeling of exhilaration, and a diminished power to perceive the sensation of movement, performances involving effort being hardly noticed. During this stage the face is flushed and the pupils are dilated; there is a tendency to talkativeness which may become wandering later, when the patient begins to feel "light-headed." This stage is not of long duration, and is superseded by the second, or stage of intoxication.

The stage of intoxication is characterized by an inclination to lie down, although there is never a tendency to sleep. The pupils are now widely dilated and react but sluggishly to light. On attempting to walk, the gait resembles that in alcoholic intoxication, and in all movements requiring precision the incoordination is evident. The body is generally in a tremulous condition, the tremors showing well when the attention is fixed on anything held in the hand. Reflexes are much increased, including the skin reflexes, although there is a considerable blunting of the senses of pain and touch. Twitching of the muscles occurs in various parts of the body, especially noticeable in the face, and there is a curious feeling as if the face, lips, and tongue were much swollen.

As in the intoxication of *cannabis indica*, time is overestimated, possibly as a result of the rapid flow of ideas and the inability to fix the attention. Perception of space is also modified, on one occasion giving the impression that the ground sloped away in all directions.

Perception may also be delayed; for example, one under the influence of peyote may look at a person he knows well and not be able to recognize him for what appears to the experimenter a considerable time. This delay may be more apparent than real, owing to the increased time relation. As might be expected, the attention can not be fixed during this stage, the least stimulus being sufficient to alter the train of thought. It was found impossible to fix the attention on a book, and a subsequent examination of notes attempted during the stage of intoxication showed incoordination both as regards language and writing.

On two occasions when deeply under the influence of the drug there was an indescribable feeling of dual existence; thus, after sitting with closed eyes subjectively examining the color visions, on suddenly opening them for a brief space one seems to be a different self, as on waking from a dream we pass into a different world from that in which we have been. This may be, to some extent, comparable to the rhythmical rise and fall of the "psychic waves" in Indian hemp intoxication.

But by far the most remarkable of these subjective phenomena are the sensory hallucinations, especially visual. These arise gradually, and are at first seen only with closed eyes; in the early stage they show an undulatory motion in zigzagged lines, but they rapidly become more marked, until on closing the

eyes a regular kaleidoscopic play of colors can be seen with either eye, precisely the same, which indicates that condition must be central.

These colors may assume all kinds of fantastic shapes; they are never still, but constantly in motion, sometimes in a circular or to-and-fro manner, but more generally there is a kind of pulsation somewhat similar to that in the cinematograph. It is interesting to note that pressure on the eyeball is sufficient to alter the colors and change the type of vision. In no case were visions of external objects seen, but always the same dashes of color, of a brilliance and blending which in the intoxicated condition seemed to be of indescribable beauty, and even as a memory still possess a charm. The coloring of all external objects is intensified. The light-blue shadows seen with the eyes open in this stage are probably due to the dilatation of the pupils.

The effect of the sound of the piano was most curious and delightful, the whole air being filled with music, each note of which seemed to arrange around itself a medley of other notes which appeared to be surrounded by a halo of color pulsating to the music.

Doctors Prentiss and Morgan:

The production of visions is the most interesting of the physiological effects of peyote. The visions ranged from ill-defined flashes of color to most beautiful figures, forms, landscapes, dances—in fact, there seemed to be absolutely no limit to the variety of visions which the drug could produce. They can in but few cases be seen with the eyes open, but upon closing them an everchanging panorama appears. The predominating features of the visions are the color effects, although the figures, forms, and other presentations are in themselves sources of pleasure and admiration. Drumming or otherwise marking regular time enhances the beauty and variety of the objects seen. In some cases the visions are under the control of the will, while less frequently they are apparently subject to the suggestion of others. The amount of pleasure derived from the drug seems to vary inversely with the amount of muscular depression present. The effect of the drug in the production of visions is in all probability due to the stimulation of the centers of vision in the brain. The persistent headache and the feeling of exhaustion in the occipital region, which are sometimes experienced as after effects, are of interest in this connection.

In some cases no effect of the drug is apparent upon the reason or will of the user. In others there may be slowness of thought, loss of the power of expression, or even marked delusions. Compared with alcoholic intoxicants, the effect on the mind is slight.

Dilatation of the pupils is a constant effect, and persists from 12 to 24 hours after the last dose of the drug. The dilatation is accompanied by a slight loss of the power of accommodation and a consequent loss of vision.

More or less depression of the muscular system is produced and may be noticed as the first effect of the drug. Such depression ranges from a feeling of lazy contentment to marked muscular depression, according to the susceptibility of the individual. Whether the sedative action is caused by depression of the nerve centers, peripheral nerves, or their nerve endings, or of the muscular fibers themselves, is not positively known; however, the weight of opinion is inclined to the belief that it is due to depression of the nervous system and not of the muscular fibers themselves. As the effects of the drug subside a partial loss of feeling in the skin may appear as a symptom in some cases.

The heart action is at first rendered more slow and somewhat weaker in quality. This is followed by a rise to the normal in quality and rapidity, which continues during the period of greatest activity of the drug.

The respiration may partake of the general muscular depression, but as a rule is not much affected by moderate doses of the drug.

Upon the stomach the drug produces an effect which varies from a feeling of uneasiness and fullness at intervals to nausea and vomiting.

Inability to sleep for at least 12 hours after the effects of the drug begin to wear off is a constant symptom.

Loss of the sense of time is also a constant symptom.

The effect upon the bowels, skin, temperature, and the amount of secretion of the various glands of the body are not constant.

The physiological action of peyote upon man can not be said to be identical with that of any other known drug. Its effects resemble those of certain drugs in some of the symptoms produced, but differ widely from them in others. Cannabis indica produces visions and dilates the pupils, exerting slight effect upon the circulation. In these particulars, its action is similar to that of peyote. But cannabis indica is a hypnotic, and the delirium and hallucinations are in most cases followed by sleep, while peyote, on the other hand, invariably tends to produce wakefulness. The Indians do not sleep for 24 hours after the commencement of their ceremonies. In this tendency to produce wakefulness peyote resembles cocaine.

The visions produced by cannabis indica are generally of a gay character, producing much merriment, accompanied by a great inclination to muscular movement. The visions of peyote provoke wonder and admiration, but no merriment. There is a disinclination toward muscular effort.

Cushney's *Materia Medica* :

Peyote is similar to opium and cannabis indica, but more frequent color visions are produced. The drug does not cause the same amount of merriment that cannabis indica does, nor the sleep that morphine does. It produces imperfect coordination of movement, retards perception, and causes errors in the estimation of time, due to its action on the cerebrum. Large doses cause depression of the respiratory and circulatory centers.

Merck's *Index*, 1907 :

Mescal buttons cause intoxication accompanied by most wonderful visions, beautiful and varied kaleidoscopic changes, sensations of increased physical ability.

Conclusions based upon laboratory tests of the physiological action of peyote made by Prof. Roswell P. Angier, of Yale University, were summarized as follows:

1. Interferes with accuracy of movement.
2. Impairs the steadiness and precision of movement.
3. Retards visual apprehension.
4. Reduces accuracy and concentration of attention.
5. Lessens the memory of ideas.

All experiments taken together seem to indicate, at least, that under the influence of peyote control over the motor coordination of muscles suffers; that power of attention is not so great; and that such effort produces more fatigue than when exerted in the normal state. Furthermore, it appears that the range of apprehension and memory also suffers. Even with small doses of the drug the general efficiency of the body is lessened. Under the influence of peyote if work is attempted it is performed with a sort of superficial haste.

THERAPEUTIC USES.

United States Dispensatory, nineteenth edition:

The value of mescal buttons as a remedial agent is doubtful; it has been employed to a slight extent in various forms of neurasthenia and hysteria, and is asserted by S. F. Landry to be especially valuable in cases of asthma. It has also been alleged to be useful in neuralgic and rheumatic affections. It may prove of value as a nerve stimulant in cases of hypochondriasis and similar states where there is a tendency to failure of the heart. Prentiss and Morgan give the dose of the crude drug as from 7 to 15 grains; of the fluid extract, from 10 to 15 minims; of the 10 per cent tincture, from 1 to 2 teaspoonfuls.

The therapeutic effects of peyote, so far as is known, would seem to satisfy Dorland's definition of a narco-stimulant; that is to say, the drug possesses both narcotic and stimulant properties. The action of the isolated alkaloids is different from that of the crude drug. Dorland defines a narcotic as "Any drug that produces sleep or stupor, and at the same time relieves pain."

One of the alkaloids is said to produce sleep when administered hypodermically. The crude drug, like cocaine, causes wakefulness, but acts as a narcotic in other respects.

The Indian use of peyote for therapeutic purposes has been too empirical to be of value. It is used for every indication because of its narcotic properties. Two of the largest drug-manufacturing houses of the world, the only firms that ever introduced peyote into scientific medicine, abandoned it because physicians would not prescribe it.

If it has any real therapeutic value, it has not yet been determined, nor have the dosage and preparation been standardized; hence it is safer to let it alone.

PEYOTE AND THE FOOD AND DRUGS ACT.

Section 6 of the food and drugs act of June 30, 1906, defines the term drug and food in a proviso, stating:

That the term "drug" as used in this act shall include all medicines and preparations recognized in the United States Pharmacopœia or National Formulary for internal and external use, and any substance or mixture of substances intended to be used for the care, mitigation, or prevention of diseases of either man or other animals. The term "food," as used herein, shall include all articles used for food or drink, by man or other animals, whether simple, mixed, or compound.

Peyote does not appear to come within the foregoing definition of medicine or food as it has been interpreted by the courts. It is not recognized by the United States Pharmacopœia, nor is it mentioned in the National Formulary. Its use as an "Indian medicine"

is not recognized scientifically. In fact, it has at present no place or recognition in materia medica. It is not used as a food to nourish the body, nor can it properly be called a beverage, for it is not used to allay thirst. Its principal use in the form of a liquid is as "holy water" or as a convenient way of forcing babies to take it or of administering it to those who can not chew the "buttons."

Customhouse detention of peyote has been brought about by invoking a law to be found in section 11 of the act of June 30, 1906 (34 Stat. 768-772) reading, in part, as follows:

The Secretary of the Treasury shall deliver to the Secretary of Agriculture, upon his request from time to time, samples of foods and drugs which are being imported into the United States or offered for import, giving notice thereof to the owner or consignee, who may appear before the Secretary of Agriculture, and have the right to introduce testimony, and if it appear from the examination of such samples that any article of food or drug offered to be imported into the United States is adulterated * * * or is otherwise dangerous to the health of the people of the United States * * * the said article shall be refused admission, and the Secretary of the Treasury shall refuse delivery to the consignee and shall cause the destruction of any goods refused delivery which shall not be exported by the consignee within three months from the date of notice of such refusal under such regulations as the Secretary of the Treasury may prescribe.

Under the authority of the foregoing section of the food and drugs act, the bureau has been able to detain shipments coming into the country from Mexico through customhouses, as may be seen from the regulation which appeared in "Service and Regulatory Announcement No. 13," Department of Agriculture, Bureau of Chemistry, issued May 3, 1915:

The branch laboratories of the bureau have been instructed to detain all shipments of "peyote"—synonyms "hikulu," "mescal buttons"—offered for import at the various ports, on the ground that it is an article dangerous to the health of the people of the United States. "Peyote" is a product derived from the plants of the genus "*Anhalonium*, order *Cactaceae*."

The effect of the regulation has been to make it somewhat less convenient to get peyote, but it has not lessened the supply.

Under the act of January 30, 1897 (29 Stat. 506), it is made an offense "to furnish any article whatsoever under any name, label, or brand which produces intoxication to any Indian ward of the Government."

A test case was brought before a United States court under the foregoing statute, but it was held that in law the definition of an intoxicant is restricted to alcoholic preparations.

If any obstacle is to be interposed against the peyote habit other than that of education, there is need of a special law or an amendment to the Harrison Narcotic Act.

OPPOSITION TO LEGISLATION.

The peyote societies are not stoically indifferent toward the agitation for legislation against peyote. There appear to be organizations in opposition to such a program, and they are very active in their propaganda for their constitutional rights. They have their paid attorneys to advise them and to represent them. They have their influential sponsors and they have their friends in Congress—all sincere in their opinions that peyote is making the Indians better, making them sober and industrious. They are sincerely interested in the welfare of the Indians, and the task is to demonstrate to them and to the Indians that they are in error: that the use of peyote instead of being a constitutional privilege and a blessing is an error of constitutional interpretation and an insidious curse.

The peyote users among the Indians rest their case on two points—their constitutional rights and the benefits of peyote. Indians who are opposed to peyote argue that the peyote users do not constitute a church organization, but a collection of peyote eaters banded together in a sort of social fellowship to enjoy the privilege of meeting in friendly gatherings to experience the seductive pleasures of the weird form of intoxication produced by consuming their religious fetish—peyote: also that the use of the drug is harmful to the addicts and militates against their moral, physical, and mental welfare through its insidious power to do evil.

TESTIMONY OF DR. HARVEY W. WILEY.

Dr. Harvey W. Wiley in testifying before the Senate Committee on Indian Affairs said, in brief:

* * * This is the point which I desire to bring before this committee—that a substance which is not a food, and which does exert a powerful influence upon the nerve centers—because that is where it must be exerted finally—should not be used except for medicinal purposes, and then only under the advice and supervision of a competent physician.

Now, that is the attitude which we hold toward drugs similar to peyote and all intoxicating drugs. We also take the same position toward the powerful remedies that are not intoxicating in the ordinary sense, although they may be toxic in their general effect, but we speak of intoxication as some derangement of the mental structure, and followed by a lack of coordination in the physical structure.

We have laws carefully controlling the use of such drugs in this country, laws passed by Congress and many by the States. The Harrison narcotic law, so called, is an attempt—and a fairly successful one—to limit the use of opium and cocaine, on account of the fact that they have the properties, which I have just mentioned, of intoxication.

The people of the United States have ratified an amendment to the Constitution controlling alcohol, which is an intoxicant, and thus the principle that these dangerous drugs should be controlled has been written into the Constitu-

tion and the opposition to legislation of this kind on the grounds that it is unconstitutional, that it interferes with personal liberty, or that it is a matter that should be left to the individual judgment is not tenable, because, had we followed that principle, we would have had none of these acts of restrictive legislation.

Now, I think that the people who are exposed to dangers of this kind are usually very much opposed to being protected. That is true particularly with regard to alcohol, opium, cocaine, and other habit-forming drugs, and I call this peyote and believe it to be a habit-forming drug for this reason; if we should listen to the arguments of those who want to use the drug or have used it or any kind of a drug which is regulated by legislation we would not have any legislation of any kind.

It seems to me those who should control, so far as argument is concerned, are persons who are not subject to the drug themselves, who have no desire to use it for themselves, but who have the welfare of the people who use this drug at heart. * * *

I would not regard as a religious cult any exhibition or exercise produced by a toxic drug. I do not believe in that kind of culture. * * * So far as building up a peyote church is concerned, if that is established we will have an alcohol church and a cocaine church and a tobacco church, and any other person who wants to use a drug and escape legal penalties for doing so can call it a religious rite. It is a drug addiction, pure and simple.

THE PEYOTE QUESTIONNAIRE.

Under date of March 28, 1919, the Indian Office issued a questionnaire of 21 interrogations pertaining to peyote, designated as circular 1522, addressed to the superintendents with instructions to render the questionnaires themselves and to secure accomplishments from their physicians, field matrons, and farmers. They were also directed to submit the questionnaires to the missionaries working among their Indians and to transmit the returns as independent reports. Copies of the circular were sent to inspecting officials and special liquor suppression officers.

The interrogatories and requests for information incorporated in the said circular were as follows:

Ed-L & O.

Circular No. 1522.

Peyote.

DEPARTMENT OF THE INTERIOR,

OFFICE OF INDIAN AFFAIRS,

Washington, March 28, 1919.

To superintendents, inspecting officials, physicians, and others interested:

The office desires to obtain reliable and authoritative information to date as to the growth and the present status of the use of peyote by Indians and the effects from such use.

Superintendents in charge of reservations are instructed to submit reports from their physicians, field matrons, and farmers on the subject in addition to their own report. The missionaries should also be requested to submit a

report through you answering the questions herein presented. Please submit your report by May 1, 1919, if possible, covering the following phases of the subject:

1. Give the name of agency and Indians covered by your report.
2. What opportunity have you had to observe the use and effects of peyote, or mescal, where peyote is so called?
3. Do these Indians use peyote? If so, what percentage of them use it?
4. Do the Indians eat the button; or drink the liquid after steeping; or how is it prepared for use?
5. What is the moral, mental, and physical effect produced by the use of peyote? Does it cause intoxication?
6. Are the Indians who use peyote any more or any less industrious, thrifty, advanced, or civilized than those who do not use it?
7. Upon what do you base your answers to questions 5 and 6?
8. Is the peyote button used in connection with any religious services? If so, how, and under what rules as to fixed times, quantity, membership, and other conditions?
9. Is its use in religious service a long established custom of the tribe or a recent innovation? Give data, if practicable.
10. If the practice is recent, by whom was it introduced?
11. In the case of those who profess to use peyote as a sacrament at religious services, do they use it also at other times?
12. Is it used by Indians at meetings other than those of a religious character? If so, give information relative thereto.
13. At religious services or other meetings is peyote given to all who attend regardless of whether they are adults or children?
14. How long do the peyote services or meetings last, and what are their effect on those who attend? State facts clearly.
15. From your information and observation do you believe the plea that peyote is used as a religious sacrament is genuine, or that it is advanced as a cloak to prevent legislative enactment against the use of the drug? Upon what do you base your answer?
16. Is peyote used or administered as a medicine? If so, by whom, in what cases, and how is it administered?
17. Give specific instances of cases within your knowledge where the use or administration of peyote has been harmful or degrading.
18. Through what agency is the peyote button distributed among the Indians of the jurisdiction upon which you are reporting?
19. Where does the supply come from? If shipped in, how, to whom, and from whom?
20. Has the question whether it is in fact an intoxicant been presented to and decided by the courts or has it been passed upon by other authority?
21. Give any other information you may be able to furnish in connection with its use.

SUMMARY OF THE ANSWERS TO THE QUESTIONNAIRE.

A summary of the 302 answers is submitted. Some of the information is condensed into tabular statements, some arranged as synopses, and some as running comment.

In assembling the answers to that part of question 3 requiring a statement of the percentage of peyote users it was observed that in

many cases the percentage of the families associated with the cult was stated regardless of the number of individuals who were actually addicted to the habit, as for instance, if in a band of Indians numbering 600 there could be counted 30 peyote families, aggregating 150 individuals, the report might show 150 users, or a percentage of 25; or it might take cognizance of the adults only—that is, of those more than 18 years of age, say, husbands and wives, 60; children of 18 years or more, 30; total, 90, or a percentage of 15. The truth in such a case might be that only men were partakers, and perhaps they might not be habitual users; hence it became necessary to adopt some scheme of classification to which all reports could be reduced, whereupon it was decided to employ the group heading "Number affected by peyote." Under this classification are enumerated all peyote users and the families in which they belong. The actual number of users, of course, is considerably less than the number affected by peyote, since the young children and frequently other members of the family are not addicted. In adopting this classification the secret users who are not reported, if there be any, are more than accounted for in the enumeration of nonusing children under this caption.

SUMMARY OF THE RETURNS.

Question 1. Answers embodied in Table 1.

Question 2. Nearly all the answers displayed considerable knowledge of the subject on the part of those making them, and in cases where opinions were expressed or examples cited personal knowledge derived from intimate observation and inquiry was claimed by the testifiers.

Question 3. (See Tables 1 and 2.)

Question 4. An analysis of the answers to this question shows that though eating the button is probably the most usual way of partaking of peyote, except as a medicine, because it is the most convenient way, the method of the use of the drug has not been made the subject of ritual law or priestly regulation. For administration as a remedial agent, to be used internally, or as a local application either for its medicinal effect or exorcismal functions, and also when it is employed in celebrating baptism or for other sacramental purposes, or as a holy water, an infusion or decoction of the peyote buttons is used.

The buttons are sometimes ground into powder, which is put into capsules by those who prefer this method of administration. Others soak the buttons in water before swallowing them. This precaution eliminates to a great extent the necessity for mastication, facilitates the process of swallowing, and lessens the time during which the bitter, disagreeable-tasting substance must remain in the mouth before it is "ready for action."

The young people and others who have good teeth will accommodatingly chew the buttons into a pulpy mass for those whose teeth are bad. When the bolus is "all right now," it is transferred by the chewer into the palm of the donee, who with his fingers compresses it into a spherical mass, "slaps it into his mouth," rubs the back of his neck with his left hand and his stomach with his right and "lets her go," knowing that he will get prompt action with no further

expenditure of effort. (The quoted words are not from the files but from an oral description of peyote methods by a young English-speaking Indian.)

Without questioning the altruistic character of the motive which actuates the "vicarious" chewers, it is conceivable that they, particularly those who make a practice of chewing for others, are not oblivious to the fact that a certain amount of unavoidable toll is taken by their systems from the "peyote juice" mixed with the saliva, which is invariably swallowed as a matter of economy.

When an infusion or decoction of the drug is used, known as "peyote tea," even the dregs or grounds are eaten, and also when the buttons are soaked to make them softer, the liquid is utilized—true examples of conservation.

Question 5. With the exception of three agencies, all the reports assert that the moral, mental, and physical effects of peyote are detrimental. The following descriptive terms and expressions are taken from the various answers to this question, and arranged in the order in which they appeared in the interrogatory:

Moral effects.—Debasing, deadens moral sensibilities, tends to immorality, tends to licentiousness; makes its victims liars; morally degenerating; weakens resistance power; has same effect as liquor on morals; like opium; like any other drug habit; eliminates moral power; it is a surprise to me and appears to be to everyone else * * * for if anything could be said in favor of the continuation of its use it would be that it probably will exterminate those who use it; weakens the moral fiber; lowers moral efficiency; degrading in every particular; degrading and degenerating; leads to sexual perversion; makes degenerates out of the Indians; it ruins those who use it mentally, morally, and physically; continued use of peyote causes mental, moral, and physical degeneration; weakens in every respect; increases immorality without a doubt.

Mental effects.—Increases the imagination; makes its victims noncommittal; produces visions; makes the mind stupid; deadens the intellect; stupefies; produces lethargy; makes the mind stupid, especially in children; weakens will power and opinions; causes the users to lose interest; stimulates the mind at first, followed by reaction; acts like opium or morphine; degrading in every particular; its use produces stupor; weakens them mentally; those who have the habit are indolent, shiftless, and have no fixed purpose; the continued use of peyote makes the users dead-headed and stupid.

Physical effects.—Produces yellow color and drawn look; impairs nerve stability; produces physical degeneration and weakness; makes its users indifferent; produces certain diseases and leads to early decay and death; may lead to insanity; makes the body sluggish; stupefies children; weakens the body; weakens the offspring.

Does peyote cause intoxication?—With the exception of three or four answers, the opinion is expressed that peyote causes intoxication. Some call the period of reaction the condition of intoxication, and others refer to the period of stimulation, the stage of visions, as a state of intoxication, while others regard the first effects, which produce a feeling of general contentment and well being as a manifestation of intoxication.

Only one answer—and that was made by a missionary—stated that there is no effect. From a legal point of view the term intoxicant should be restricted to that which produces a form of intoxication coming within the definition, *the condition produced by the excessive use of alcoholic stimulants*. There is certainly some change in the feelings and mental condition produced by peyote which is agreeable to the users, and while experiencing this changed feeling due to peyote those in whom the effects are manifested are not in their normal condition, and if the dose has been sufficiently large they are affected mentally, morally, and physically, according to an analysis of the

vast preponderance of the testimony submitted in the answers under consideration.

Question 6. With one notable exception the superintendents who answer the question are practically of one opinion as to whether Indians who use peyote are more industrious, more thrifty, and more advanced than those who do not use it, all agreeing that the use of the drug, either directly or indirectly, is detrimental to industry, thrift, and advancement. Two farmers and one missionary submit what might be termed a minority report sustaining the view expressed by the superintendent who alleges that peyote users are more industrious, more thrifty, and more advanced than Indians who do not use it. Among Indians who are moderate or occasional users of peyote the indirect effects are more noticeable than the direct effects, for the members of the peyote bands must pay the expense of holding the peyote feasts and they must neglect their work to attend. A Utah Indian alleges that he had to sell two head of cattle to pay his pro rata share of one of the feasts given by his band, but undoubtedly the average feast would be less expensive; however, there is abundant evidence to show that many an Indian who desires peyote prominence will spend from \$50 to \$500 annually to establish and maintain his right to the title of good fellow. Peyote comradeship leads to a free expression of the natural trait of liberality, so characteristic of the Indian race, but unfortunately it is also conducive to poverty and debt, with their distasteful consequences to industrial progress and thrift possibilities.

Question 7. The answers made to interrogatories 5 and 6, involving the expression of individual opinions upon the effects of peyote upon the moral, mental, and physical nature of the Indians who use the drug, upon whether peyote was an intoxicant, and whether the peyote habit affected the condition of the Indians with regard to their industrial attainments, habits of thrift, and status of civilization, claim to be based upon observation, inquiry, and investigation. For the most part the variation in answers may be explained by the different ways in which the questions were interpreted, some evidently thinking that they referred to near effects—that is to the immediate action of the drug—and others understanding that they meant the remote or terminal effects or results of the use of peyote.

Question 8. All Indians other than those of the pueblo of Taos, N. Mex., and the Northern Cheyennes of Tongue River Reservation, Mont., claim that their use of peyote is primarily a religious rite, and that peyote is both a sacrament and a medicine. The Tongue River Indians and the Taos Indians hold that peyote is an Indian medicine and that it was created for the Indians and not for white people. They frankly admit that they take it because they believe in it as a medicine and because they like the effect produced by it.

On a few reservations the use of peyote is apparently restricted to its religious and so-called medicinal use, but among the majority of Indians who partake of the drug the prime consideration is the sensation produced by it. The habitual user will take a dose anywhere and whenever he can get it. Some carry it in their pockets like tobacco, while others do not care to indulge alone but prefer to meet and enjoy it together. This class may take advantage of any meeting to show their sociability. As a rule peyote meetings are held at regular set intervals or at the call of the leaders. The scheduled meetings are sometimes held weekly, Saturday night being the time of selection, semimonthly or monthly according to the season of the year, the supply of peyote, the condition of the weather, the roads and the financial condition of the leaders and the members. The cost of small peyote meetings are functions given by the leaders and others and are subscription affairs. Nearly all the scheduled or ad-

vertised meetings have a religious aspect. The accidental meetings are simply the improvement of opportunities for sociability, such meetings frequently being the accidental coming together of a few kindred souls.

The membership of a peyote lodge is usually made up of adult males, that is to say, of males that are more than 18 years of age, but this does not mean that the women and children are excluded. The former are an essential part of the meeting. They prepare the feast and also partake of the drug, but generally they take no part in the public function—in "putting on the ritual." Children may also attend, but they do not take peyote as a rule except when it is given to them as medicine. The taste is not inviting, nor would a small child like the sensation of peyote intoxication, for children and the lower animals want to feel natural and are uncomfortable when they have an "artificial feeling."

Indians are generous, and their tables, even at a peyote feast, are set in the open communion plan and in the spirit of "whosoever will, let him come and partake freely," regardless of station, age, sex, or previous condition.

Question 9. The answers as to when the peyote habit was taken up by the Indians of the United States range from 2 to 55 years ago, the greater number having reference to the Kiowas, who have used the drug for a long time. The use of peyote among Indians other than the Kiowas and Comanches is of comparatively recent date, being introduced perhaps in the eighties, but did not begin to spread until 1895 or later.

Question 10. The extension of the peyote habit may be traced directly through "apostolic succession" to Aztec origin. The knowledge of the drug has been carried from one tribe to another by missionary activity actuated more by a yearning for leadership and power than by faith in its religious significance. While a few Indians have been able to maintain themselves by preaching the gospel of peyote, it would seem that there has been no organized effort to commercialize this form of weakness, nor has the drug been subjected to the machinations of profiteering merchants or the schemes of monopolists.

The habit may be carried from one reservation to another by visiting Indians whose principal object is to pass along something new, something of interest, something that will add ambassadorial features to an ordinary intertribal visit. An Indian makes a good missionary. He likes to spread glad tidings and he likes the acclaim of the multitude. There is not a single case on record where a white man has been instrumental in introducing the peyote habit among Indians. The propagandist or pioneer is invariably an Indian, a peyote missionary who seeks to spread his gospel and to live by his gospel, or he is just an ordinary fellow who is seeking cheap notoriety and some sort of recognition.

Question 11. As heretofore expressed in different language, some Indians use peyote only at religious meetings; others are true addicts and use it daily. There are still others who are habitual partakers in public, regardless of the character of the meeting, but do not use it privately. These form the class who are attracted to it because it promotes sociability.

A careful study of the answers to question 11 reveals the fact that the peyote habit in a tribe is modified to a great extent by environment and opportunity. The more peyote they have the more meetings they have, and the more meetings they have the more peyote they use. The only advantage a religious meeting has over any other kind of Indian meeting in promoting the use of peyote lies in the stimulus of preparation and purpose.

Question 12. Peyote is used at meetings other than those of a religious character, and it is used in private, but such use is incidental, as a rule, to the habit. According to the analysis of the answers to question 12, practically all distinctive peyote meetings are characterized by a religious feature.

Question 13. The information given in answer to this question shows that there is considerable variation in various local customs. On account of its disagreeable taste, peyote is not sought after by children; however, boys and girls of 8 to 10 years of age have been known to become addicts. A peyote meeting is generally conducted on the open-communion plan, but, as a rule, children do not partake.

Question 14. This question, as indicated by the variation in answers, has been considered under different interpretations. Some have included under the term "services" the preparation and the feast portion of the meetings, while others have omitted these. Furthermore, some have answered that part of the question relating to the effects of the meetings under the assumption that information was sought concerning the immediate action of the narcotic, while others have discussed the remote or accumulative effects.

The average scheduled peyote meeting, lasting one night and nearly one day, will dissipate for the participants not less than three days of time and for the leaders or managers at least four days. The former spends one day in making preparations, going, and returning, and one night and one day at the feast, and one day in recovering from the immediate effects. The latter, in addition to the three days which are required of all, must spend at least another day in notifying the guests (invitations are not necessary) and in providing the feast and attending to the preliminaries.

The peyote portion of the meeting is usually from sunset to sunrise. The day after a peyote night is spent in lounging around and feasting. By selecting Saturday as the initial day of the meeting, they have all day Sunday for rehabilitation; Monday also is frequently necessary.

In some sections peyote meetings are protracted to two or four weeks, depending upon the supply of peyote. Where this practice prevails, only two or three meetings are held a year.

The use of peyote is a time-killing habit, and in this respect there can be no question as to its militating against the industrial progress of those who have the habit.

Question 15. The majority of those who have answered this question believe that with the leaders the use of peyote as a sacrament is for the purpose of preventing the enactment of legislation against the narcotic. Yet even the missionaries, for the most part, concede that some of the full bloods, particularly the old people, are sincere in their profession of faith—a faith that is based on the traditions of the past and now frequently propounded to them by young men who have been educated in government schools. The old fellows believe sincerely in the cult, for is not peyote worship near enough like the white man's religion to have the approval of the "Great Spirit"? They are told that the differences are only adaptations because peyote religion is for the Indian only, and the white man's religion is for white people.

Question 16. The consensus of answers shows that peyote is administered as a remedial agent by the medicine man, by the priests of the cult, by old women, and by habitual users. It is usually administered as a tea, both internally and locally, and is used as a remedy for every kind of disease. It may be used as a medicine in any other form, or it is regarded as equally efficacious as an exorcissory agent.

Question 17. Probably half of those answering this question make citations of specific cases showing the harmful or degrading effects of the habitual use of the drug.

Question 18. Peyote is invariably distributed among Indians by other Indians. One Indian may supply two or three reservations, or one congregation may

get their supply from another congregation. The Indians apparently do not seek to make a profit on the sales of peyote among themselves.

Question 19. Peyote is obtained from Texas and Mexico. A curio merchant in Ponca City, Okla., does a somewhat extensive local and mail order business in this commodity, his supplies coming from Mexico and Texas.

Peyote finds its way to the reservations by parcel post, by express, occasionally by freight, in the suitcases of "pilgrims," and in the pockets of visitors.

Question 20. There are mentioned two cases in both of which it was decided that the effects of peyote do not conform to the legal definition of intoxication. The Utah State Board of Pharmacy holds that it is an intoxicant, and under the laws of both Utah and Colorado its use is prohibited. Oklahoma formerly had a law against it, but it was omitted in the codification of the State Statutes and thus repealed. Since this law ceased to exist in Oklahoma, the State has granted a charter to the peyote cultists under the name of "The Native American Church."

A decision was rendered by a justice of the peace in a small Nebraska town, holding that peyote is an intoxicant.

Question 21. Several writers have taken advantage of the liberty granted by this question to protest against the waste of time entailed in attendance upon peyote functions. The meetings are often held during the dry seasons and seriously interfere with the harvesting of the crops, even when such meetings are restricted to Saturday nights and Sundays, for there must be taken into consideration the preparation day before and "the day after," when very little work is done. Protests are also made against the serious drain made upon the financial resources of the Indians who give the functions. In their efforts to keep up appearances and be good fellows they are impoverishing themselves; and finally the superintendents plead for the lower animals, for the horses that are overdriven, and for the poor creatures which are neglected from the day of notification to the day of restoration to a normal condition.

TABLE 1.—Showing the number of Indians affected by peyote at each agency in the United States, and the relation of such numbers, expressed in terms of percentage, to the population of each jurisdiction concerned.

[NOTE.—For definition of the phrase "affected by peyote" as used in Table 1, see Summary of the Answers to the Questionnaire, last paragraph.]

Agency.	Indian tribes.	Total population.	Number affected by peyote.	Per cent of population.
Bishop.....	Paiute, Shoshoni, Moache.....	1,588	0	0
Blackfeet.....	Blackfeet, Blood, Piegan.....	2,773	0	0
Campo.....	Mission.....	229	0	0
Campo Verde.....	Mojave-Apache.....	435	0	0
Cantonment.....	Arapaho, Cheyenne.....	780	702	90.0
Cherokee.....	Eastern Cherokee.....	2,343	0	0
Cheyenne and Arapaho.....	Cheyenne, Arapaho.....	1,252	939	75.0
Cheyenne River.....	Blackfeet, Miniconjou, Sans Arc, Two Kettle Sioux.....	2,845	0	0
Coeur d'Alene.....	Coeur d'Alene, Kalispel, Kootenai.....	829	0	0
Colorado River.....	Cocopa, Kewai, Mojave, Chemehuevi.....	1,184	0	0
Colville.....	Coeur d'Alene, Colville, Kalispel, Okanogan, Lake Methow, Nespelem, Pend d'Oreille, Sannoll, Spokane (Confederated Colville).	2,566	0	0
Crow.....	Mountain Crow, River Crow.....	1,703	34	2.0
Crow Creek.....	Lower Yanktonai Sioux.....	970	0	0
Cushman.....	Chehalis, Muckleshoot, Nisqually, Skokomish (Clallam), Squaxon Island.....	2,143	0	0
Digger.....	Digger.....	299	0	0
Fallon.....	Paiute.....	420	0	0
Five Civilized Tribes.....	Choctaw, Chickasaw, Cherokee, Creek, Seminole.....	101,506	40	0
Flandreau.....	Flandreau Sioux.....	293	0	0

TABLE 1.—Showing the number of Indians affected by peyote, etc.—Continued.

Agency.	Indian tribes.	Total population.	Number affected by peyote.	Per cent of population.
Flathead.....	Bitter Root, Carlos, Flathead, Kutenai, Lower Kallispel, Pend d'Oreille (Confederated Flathead).	2,426	0	0
Florida Seminole.....	Seminole.....	585	0	0
Fond du Lac.....	Chippewa.....	1,067	0	0
Fort Apache.....	White Mountain Apache.....	2,456	0	0
Fort Belknap.....	Assiniboine Grosventre.....	1,208	0	0
Fort Berthold.....	Arikara, Grosventre, Mandan.....	1,204	0	0
Fort Bidwell.....	Digger, Paiute, Pit River.....	750	0	0
Fort Hall.....	Bannock, Shoshoni, Skull Valley.....	1,764	0	0
Fort Lapwai.....	Nez Perce.....	1,551	0	0
Fort McDermitt.....	Paiute.....	349	0	0
Fort Mojave.....	Mojave-Apache ¹			
Fort Peck.....	Assiniboine, Brule, Santee, Teton, Hunkpapa, Yanktonai Sioux.....	2,039	0	0
Fort Totten.....	Assiniboine, Cuthead, Santee, Sisseton, Yankton, Wahpeton Sioux.....	983	10	1.0
Fort Yuma.....	Yuma.....	835	0	0
Goshute.....	Paiute.....	423	0	0
Grand Portage.....	Chippewa.....	321	0	0
Grand Rapids (now Wisconsin Rapids).	Potawatomi, Winnebago.....	1,372	480	35.0
Greenville.....	Digger, Washo, Concow, Ukie.....	693	0	0
Havasupai.....	Havasupai.....	171	0	0
Hayward.....	Chippewa.....	1,276	0	0
Hoopa Valley.....	Hunsatung, Hupa, Klamath River, Miskut, Redwood, Saiaz, Sarmalton, Tishtanatan.....	1,485	0	0
Jicarilla.....	Jicarilla Apache.....	621	0	0
Kaibab.....	Kaibab Paiute.....	102	0	0
Keshena.....	Menominee.....	1,758	53	3.0
Kickapoo.....	Iowa, Kickapoo, Sac and Fox.....	637	255	40.0
Kiowa.....	Apache, Comanche, Delaware, Kiowa, Wichita, and affiliated bands.....	4,583	3,437	75.0
Klamath.....	Klamath, Modoc, Paiute, Pit River, Walpape, Yakooskin Band of Snake (Shoshoni).....	1,160	0	0
Lac du Flambeau.....	Chippewa.....	744	0	0
Laona.....	Potawatomi.....	355	0	0
La Pointe.....	Chippewa.....	1,054	0	0
Leech Lake.....	Cass Lake, Pillager, and Lake Winibigoshish Bands of Chippewa.....	1,786	89	5.0
Leupp.....	Navajo.....	1,441	0	0
Lower Brule.....	Lower Brule and Lower Yanktonai Sioux.....	513	0	0
Malki.....	Mission.....	634	0	0
Mackinac.....	L'Anse, Vieux Desert, and Ontonagon Bands of Chippewa.....	1,097	0	0
Mescalero.....	Mescalero Apache, Mimbreno Apache.....	630	0	0
Mississippi Choctaw.....	Choctaw.....	1,253	0	0
Moapa River.....	Paiute.....	113	0	0
Moqui.....	Hopi, Navajo.....	4,225	0	0
Navajo.....	Navajo.....	12,080	0	0
Neah Bay.....	Hoh, Makah, Ozette, Quileute.....	682	0	0
Nett Lake.....	Bois Fort Band of Chippewa.....	614	0	0
Nevada.....	Paiute.....	561	0	0
New York.....	Cayuga, Oneida, Onondaga, Seneca, St. Regis, Tonawanda, Tuscarora, Montauk, Poospatuck, Shinnecock (not classified).....	5,982	0	0
Omaha.....	Omaha.....	1,377	1,239	90.0
Oneida (Wisconsin).....	Oneida.....	2,610	0	0
Osage.....	Great Osage, Little Osage.....	2,186	1,093	50.0
Otoe.....	Otoe and Missouri.....	524	262	50.0
Pala.....	Missiou.....	1,025	0	0
Pawnee.....	Pawnee.....	716	143	20.0
Pima.....	Mari-copa, Papago, Pima.....	6,253	0	0
Pine Ridge.....	Northern Cheyenne, Brule Sioux, Oglala Sioux.....	7,340	367	5.0
Pipestone (Birch Cooley).....	Mdwakanton and Wapaguita Sioux and Sisseton, and Wahpeton.....	164	0	0
Ponca.....	Kaw, Ponca, Tonkawa.....	1,060	636	60.0
Potawatomi.....	Prairie Band of Potawatomi.....	777	124	16.0
Pueblo Bonito.....	Navajo.....	2,724	0	0
Pueblo Agency.....	Pueblo, Navajo.....	8,896	33	.4
Red Cliff.....	Chippewa.....	527	0	0

¹ See Colorado River.² Exclusive of 606 Stockbridge and Munsee citizen Indians who are nonusers.³ This report does not include the 6,417 scattered Indians in Michigan who also do not use peyote.⁴ Exclusive of 360 unattached Indians—all nonusers.⁵ In a population of 8,996, only 33 individuals are affected by peyote, all residing in Taos, one of the more remote of the 19 pueblos within the jurisdiction of the agency.

TABLE 1.—Showing the number of Indians affected by peyote, etc.—Continued.

Agency.	Indian tribes.	Total population.	Number affected by peyote.	Per cent of population.
Red Lake.....	Pembina and Red Lake Chippewa.....	1,496	0	0
Reno.....	Scattered Indians of California and Nevada.....	8,000	0	0
Rocky Boy.....	Rocky Boy's Band (Cree).....	460	0	0
Rosebud.....	Rosebud Sioux.....	5,521	40	.7
Round Valley.....	Clear Lake, Concow, Little Lake, Nomelaki, Pit River, Potter Valley, Redwood Wailaki, Ukie or Yuki.....	1,818	0	0
Sac and Fox (Iowa).....	Sac and Fox (Mesquakie).....	356	107	30.0
Sac and Fox (Oklahoma).....	Iowa, Sac and Fox.....	683	295	30.0
Salt River.....	Maricopa, Mojave-Apache, Pima.....	1,277	0	0
San Carlos.....	Mojave-Apache, San Carlos.....	2,623	0	0
San Juan.....	Navajo.....	65,000	0	0
Sells.....	Papago.....	5,237	0	0
Seger.....	Arapaho, Cheyenne.....	747	598	80.0
Seneca.....	Eastern Shawnee, Ottawa, Quapaw, Seneca, Wyandotte.....	6,170	35	2.0
Shawnee.....	Absentee Shawnee, Mexican Kickapoo.....	750	75	10.0
Shivwits.....	Paiute.....	119	0	0
Shoshone.....	North Arapaho, Eastern Band of Shoshoni.....	1,696	127	7.5
Siletz.....	Confederated Siletz.....	446	0	0
Sisseton.....	Sisseton and Wahpeton Sioux.....	2,280	0	0
Soboba.....	Mission.....	926	0	0
Southern Ute.....	Capote and Moache Ute.....	369	0	0
Spokane.....	Spokane.....	604	0	0
Standing Rock.....	Sioux.....	3,455	0	0
Taholah.....	Queets River, Quileute, Quinaielt.....	734	0	0
Tongue River.....	Northern Cheyenne.....	1,470	515	35.0
Truxton Canon.....	Walapai.....	450	0	0
Tulalip.....	Lummi, Port Madison, Susquamish, Swinomish, Tulalip.....	1,353	0	0
Tule River.....	Mission.....	443	0	0
Turtle Mountain.....	Turtle Mountain Chippewa.....	3,298	0	0
Uintah and Ouray.....	Paiute.....	1,162	581	50.0
Umatilla.....	Uinta, Uncompahgre, and White River Utes.....	1,229	0	0
Ute Mountain.....	Cayuse, Umatilla, Wallawalla.....	508	0	0
Walker River.....	Capote and Moache Ute.....	804	0	0
Warm Springs.....	Paiute.....	822	0	0
Western Navajo.....	Wasco, Tenino, Paiute.....	6,565	0	0
Western Shoshone.....	Hopi, Navajo, Paiute.....	607	0	0
Whiter Earth.....	Hopi, Paiute, Shoshoni.....	6,555	0	0
Winnebago.....	Chippewa.....	1,086	413	38.0
Yakima.....	Winnebago.....	3,000	0	0
Yankton.....	Confederated Yakima.....	3,117	623	20
Zuni.....	Ponca, Santee Sioux, Yankton Sioux.....	1,815	0	0
	Pueblo.....			

⁶ Does not include 393 Peoria-Miami citizen Indians who are nonusers. Used only in the Quapaw tribe, which numbers 337.

⁷ Does not include 2,288 citizen Potawatomes.

TABLE 2.—Showing the number of Indians affected by peyote in each State in which there is one or more Indian agencies and the relation of such numbers, expressed in terms of percentage, to the total Indian population of the State concerned.

[See note under Table 1.]

State.	Indian population.	Not affected by peyote.	Affected by peyote.	Percentage of users to population.
Arizona.....	44,499	44,499	0	0
California.....	10,725	10,725	0	0
Colorado.....	877	877	0	0
Florida.....	585	585	0	0
Idaho.....	4,144	4,144	0	0
Iowa.....	356	249	107	30.0
Kansas.....	1,414	1,035	379	27.0
Michigan.....	1,097	1,097	0	0
Minnesota.....	12,003	11,914	89	.7
Mississippi.....	1,253	1,253	0	0

TABLE 2.—Showing the number of Indians affected by peyote, etc.—Continued.

State.	Indian population.	Not affected by peyote.	Affected by peyote.	Percentage of users to population.
Montana.....	12,079	11,530	549	5.0
Nebraska ¹	2,463	811	1,652	67.0
Nevada ²	10,854	10,854	0	0
New Mexico ³	21,186	21,153	33	2.0
New York.....	5,982	5,982	0	0
North Carolina.....	2,343	2,343	0	0
North Dakota.....	8,940	8,930	10	.01
Oklahoma.....	116,494	108,239	8,255	7.0
Oregon.....	11,657	11,657	0	0
South Dakota ⁴	22,879	21,849	1,030	4.5
Utah.....	1,704	1,123	581	34.0
Washington.....	11,082	11,082	0	0
Wisconsin ⁵	9,696	9,163	533	5.0
Wyoming.....	1,696	1,569	127	8.0
Total.....	316,008	302,663	13,345	4+

¹ Does not include 1,193 Santee Sioux living in Nebraska but enumerated under the Yankton Agency S. Dak.

² Includes 5,000 (estimated) nonenrolled California Indians under the Reno Agency, Nev.

³ Used only in the pueblo of Taos; estimated population, 559 (census population 1910, 521); percentage of users, 6.0.

⁴ Includes 1,193 Indians living on the Santee Reservation, Nebr., attached to the Yankton Agency.

⁵ Does not include the Stockbridge and Munsee citizen Indians.

